



Alpha Magnetic Spectrometer
NASA / DOE

Alpha Magnetic Spectrometer Weekly Reports

November 24, 2004



National Aeronautics and
Space Administration

Upcoming Events:

- Vacuum Case Status and Schedule Meetings at STADCO - November 30 - December 1 - Los Angeles
- AMS-02 Integration Meeting - December 7-9, 2004 - CERN (Geneva)
- Thermal Control System (TCS) Delta Critical Design Review (Δ CDR) - December 13-14, 2004 - CERN (Geneva)
- AMS General TIM - January 10-14, 2005 – KSC
- Tracker Thermal Control System (TTCS) PDR - January 2005, CDR - April 2005
- STA Vacuum Case Delivery (on dock at STADCO) - Schedule under review
- Flight Vacuum Case Delivery (on dock at STADCO) - Schedule under review
- AMS-02 Phase II Safety Review - March 2005 - JSC

Upcoming Tests:

- AMS-02 Avionics Functional Interface Test (FIT) - January 2005 – KSC
- Interface Plate Static Test - Date TBD - Location TBD
- Lower Joint Static Test - Date TBD - Location TBD
- STA Acoustic Test - Date TBD - ESTEC - Noordwijk, Netherlands (Schedule under review)
- STA Sine Sweep Test - Date TBD - INFN - Terni, Italy (Schedule under review)
- Full Assembly Modal & Static Tests - Date TBD - IABG - Munich, Germany

Status:

- ***LM Alpha Magnetic Spectrometer (AMS) Team members are continuing to work with STADCO personnel in an attempt to accelerate the delivery schedule for the Structural Test Article (STA) and Flight Vacuum Cases. Daily telecons are being conducted in an effort to stay on top of the issues. The LM AMS Project Manager and Vacuum Case Lead will be traveling to Los Angeles for a STADCO site visit on November 30 and December 1 in a continuing effort to push STADCO to complete the work prior to the end of the SEAT Contract.



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- Draft revisions to Part I of JSC 29095, Alpha Magnetic Spectrometer - 02 (AMS-02) Experiment/Payload Integration Hardware (PIH) Interfaces (ICD) were completed and the document was distributed to LM Alpha Magnetic Spectrometer (AMS) Team members for an internal review. After review comments are incorporated, the ICD will be submitted to the AMS Configuration Control Board for baselining.
- Seven of fourteen Unique Support Structure - 02 (USS-02) drawings submitted to the Engineering Drawing Control Center (EDCC) were signed for stress approval. Work on resolving stress issues for the remaining unsigned drawings is in work.
- Analysis results for the sustained stresses for the Upper Support Ring of the Vacuum Case are below the max allowable sustained stress for 7050 aluminum. The analysis results will be documented and included as part of the overall Vacuum Case Stress report.

- Vacuum Case Milestones

<u>Contract Deliverable</u>	<u>Due Date</u>	<u>Status</u>
Weld Fixture Complete	August 2004	
First Article Conical Flange Complete	October 2004	
STA Support Rings Complete	November 2004	(Machining complete, final inspection in work)
STA Conical Flanges Complete	November 2004	(Machining complete, metal finish in work)
Flight Support Rings Complete	November 2004	
Flight Conical Flanges Complete	November 2004	
STA Line Drill Operations Complete	November 2004	
Weld Development Complete	December 2004	(Qualification tests on hold)
Shipping Fixture Complete	December 2004	(CDR complete)
First Article Weld Complete	December 2004	
STA Match Drill Procedure Complete	December 2004	
STA Weld Complete (for proof test @ STADCO)	December 2004	
STA Vacuum Case Delivery (on dock at STADCO)	Schedule Under Review	
Flight Vacuum Case Delivery (on dock at STADCO)	Schedule Under Review	